Compact Fluorescent Lamps

Energy Saving Lamps
- Ideal as direct replacements for GLS mains voltage lamps
- Rapid start up (between 0.5 and 1 sec)
- 8,000 hours average life
- Suitable for indoor and enclosed outdoor light fittings
- Colour Temperature: 2700k (Warm White)
- Diameter: 41mm

Not suitable for use with dimmers, photocells or timer devices

Energy Saving Candle Lamps
- Ideal as direct replacements for GLS mains voltage candle lamps
- Rapid start up (between 0.5 and 1 sec)
- Suitable for indoor and enclosed outdoor light fittings
- Colour Temperature: 2700k (Warm White)
- Diameter: 42mm

Not suitable for use with dimmers, photocells or timer devices

Energy Saving Globe Lamps
- Ideal as direct replacements for GLS mains voltage lamps
- Rapid start up (between 0.5 and 1 sec)
- 8,000 hours average life
- Suitable for domestic and workplace applications
- Colour Temperature: 2700k (Warm White)
- Diameter: 110mm

Not suitable for use with dimmers, photocells or timer devices

Mini Spiral Compact Fluorescent Lamps
- Energy saving replacements for GLS mains voltage lamps
- Smaller size for more discreet applications
- Rapid start up (between 0.5 and 1 sec)
- 8,000 hours average life
- Suitable for indoor and enclosed outdoor light fittings
- Colour Temperature: 2700k (Warm White)
- Voltage: 220-240V

Not suitable for use with dimmers, photocells or timer devices

Spiral Compact Fluorescent Lamps
- Energy saving replacements for GLS mains voltage lamps
- Suitable for indoor and enclosed outdoor light fittings
- Colour Temperature: 2700k (Warm White)
- Voltage: 220-240V

Not suitable for use with dimmers, photocells or timer devices

Audio, Office and Electrical
Compact Fluorescent Lamps - continued

Spiral Compact Fluorescent Lamps - continued

<table>
<thead>
<tr>
<th>Watts</th>
<th>Dims. (LxDia) mm</th>
<th>Order Code</th>
<th>Price Each</th>
</tr>
</thead>
<tbody>
<tr>
<td>ES Fitting</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9W 55W</td>
<td>87 x 32</td>
<td>129-8309</td>
<td></td>
</tr>
<tr>
<td>11W 60W</td>
<td>101 x 42</td>
<td>129-8310</td>
<td></td>
</tr>
<tr>
<td>13W 75W</td>
<td>113 x 42</td>
<td>129-8311</td>
<td></td>
</tr>
<tr>
<td>15W 80W</td>
<td>125 x 42</td>
<td>129-8312</td>
<td></td>
</tr>
</tbody>
</table>

Compact Fluorescent Lamps

- For use as a direct replacement for candle or GLS mains voltage lamps
- High luminous intensity (white light)
- Average life: 8000 hours
- Typical emission colour: 2700k
- Low running temperature
- Helical tube design gives an even 360° distribution of light

Low Energy Daylight Lamps

- Spiral compact fluorescent lamps for use as direct replacements for GLS mains voltage lamps
- Produces a quality of light very close to natural daylight
- 8,000 hours average life
- Even 360° distribution of light
- Suitable for indoor and enclosed outdoor light fittings
- Integral rapid start electronic circuit
- Colour Temperature: 6400k

Low Energy Reflector Lamps

- 8,000 hours average life
- Up to 80% energy saving over standard equivalent
- Ideal for replacing standard reflector and GLS lamps

Low Energy GU10 Lamps

- Low energy fluorescent lamps designed to be a like for like fit to existing mains halogen lamps
- Mains voltage GU10 fittings
- 8000 hours average life
- 70% reduction in heat output, 70% saving in energy consumption and up to 90% decrease in UV output
- Diameter: 50mm

Blacklight Fluorescent Lamps

- Ultra compact blacklight blue light source
- 8000 hours life
- 25W output
- Available in Bayonet & Edison fitting
- Woods glass tube maximum UV output
- Integral electronics, no external control gear needed

Double D Lamps

- Low energy, long life lamps for domestic and commercial applications
- For use with indoor and outdoor bulkheads
- High light output
- 2 pin and 4 pin versions
- 10,000 hours average lamp life
- Popular white finish
- 3500K colour temperature
- Compatible with all current control gear

The first online technical portal for design engineers Log on, research, refine and design
CFL Square Lamps

- Low-profile compact fluorescent lamps
- Ideal for indoor and outdoor luminaires
- Uniform distribution of light
- 2 pin and 4 pin versions
- 10,000 hours average lamp life
- Dimensions:
  - 16W (LxW): 141 x 138mm
  - 28W/38W (LxW): 207 x 205mm

Supply Voltage 220 to 240V ac 50Hz

152-8624 DD1382 13 warm
152-8619 DS1184 11 cool
152-8615 152-8613 Dulux S

Mfrs. Rating Colour
List No. Wattage Colour Temp. Lumens Order Code
143-5732 38W 3500K 2700lm 143-5730
143-5731 28W 3500K 2050lm 143-5727

Dulux™ D/E For HF and Dimming Systems

- A compact double twin lamp without integral starter
- The four pin G24q base allows operation from normal electronic and dimmable electronic control gear
- Small size and symmetrical luminous distribution
- Make these lamps ideal for compact, low profile luminaires

Order Code
152-8673 Cool White
152-8676 Cool White

Dulux™ T/E

- Directly interchangeable with equivalent wattage Osram Dulux D/E
- The new triple twin technology reduces the length to 2/3 of the equivalent Osram D/E
- Without integral starter, these lamps are for use with HF control gear and dimming systems
- Ideal for compact luminaires and downlights

Order Code
152-8663 Cool White
152-8666 Cool White

Dulux™ L Lumilux

- Designed to replace conventional tubes in modern 600x600mm modular luminaires
- Four pin base requires the use of an external starter for operation on conventional control gear
- Suitable for operation on HF electronic control gear and for dimming systems
- Offers very good colour rendering

Order Code
152-8683 Cool White
152-8686 Cool White

Fluorescent Tubes

T8 Lumilux Plus Eco Fluorescent Tubes

- Reduced mercury content over other tubes
- Exceptionally high lumen output
- High efficacy with good colour rendering
- Use with Osram Quicktronic professional electronic control gear
- Available in three colour temperatures
- 26mm diameter
- G13 base

Order Code
152-8629 Warm White
152-8632 Cool White
## Fluorescent Tubes - continued

### T8 Lumilux Plus Eco Fluorescent Tubes - continued

**Mtrs.** | **Order Code** | **Price Each** | **Price Per Pack**
--- | --- | --- | ---
L18830 | 152-86390 | 2.98 | 29.84
L18840 | 152-86390 | 2.98 | 29.84
L18850 | 152-86390 | 2.98 | 29.84
L36840 | 152-86390 | 2.98 | 29.84
L36850 | 152-86390 | 2.98 | 29.84
L58840 | 152-86390 | 2.98 | 29.84
L58850 | 152-86390 | 2.98 | 29.84
L70850 | 152-86390 | 2.98 | 29.84

### T8 Triphosphor Coated Fluorescent Tubes

**Master TL-D Super 80**

- A range of fully recyclable fluorescent tubes in varying colour temperatures
- Highly efficient 3-band fluorescent coating in combination with New Generation pre-coating technology
- 17500 hours average life on high frequency gear, 12000 hours on switch start
- Hot initial lumen output
- GS base
- FEP shatterproof coating outperforms lamp life
- Long Life: 50,000 hours
- Standard: 15-20,000 hours
- Superior colour rendering from T5 tubes
- New generation of high efficiency tubes
- Includes triphosphor technology for superior lumen maintenance
- 16mm diameter and safe disposal
- Superior colour rendering from T5 tubes
- New generation of high efficiency tubes
- Includes triphosphor technology for superior lumen maintenance
- 16mm diameter and safe disposal
- Prevents widespread glass contamination from accidental lamp breakage
- Impact tested to IEC60068-2-75 (5 joules) 6m
- FEP shutterproof coating outperforms lamp life
- NB. These are branded lamps with a Glass Guard FEP coating

### Shatter Resistant T8 Fluorescent Safety Lamps

- Polymer coating contains the glass and chemical debris for quick, easy and safe disposal
- Prevents widespread glass contamination from accidental lamp breakage
- Impact tested to IEC60068-2-75 (5 joules) 6m
- FEP shutterproof coating outperforms lamp life
- NB. These are branded lamps with a Glass Guard FEP coating

### T5 Plus High Efficiency Fluorescent Tubes

**Master TL-D Super 80**

- Superior colour rendering from T5 tubes
- New generation of high efficiency tubes
- Includes triphosphor technology for superior lumen maintenance
- 16mm diameter and safe disposal
- FEP shatterproof coating outperforms lamp life
- Long Life: 50,000 hours
- Standard: 15-20,000 hours
- Superior colour rendering from T5 tubes
- New generation of high efficiency tubes
- Includes triphosphor technology for superior lumen maintenance
- 16mm diameter and safe disposal
- Prevents widespread glass contamination from accidental lamp breakage
- Impact tested to IEC60068-2-75 (5 joules) 6m
- FEP shutterproof coating outperforms lamp life
- NB. These are branded lamps with a Glass Guard FEP coating

### T5 - Triphosphor Coated

- **T5 FHE/FHO lamps**
- Average rated life of 16,000 hours
- Warm white and cool white deluxe triphosphor coatings
- FHE versions (Fluorescent High Efficiency) for use where efficient direct lighting in low profile luminaries is required
- Superior colour rendering from T5 tubes
- New generation of high efficiency tubes
- Includes triphosphor technology for superior lumen maintenance
- 16mm diameter and safe disposal
- Prevents widespread glass contamination from accidental lamp breakage
- Impact tested to IEC60068-2-75 (5 joules) 6m
- FEP shutterproof coating outperforms lamp life
- NB. These are branded lamps with a Glass Guard FEP coating

### Miniature T5

- Miniature fluorescent tubes commonly used in display cabinets, effects lighting, vending and amusement machines
- GS fitting
- 3500K white colour temperature
- 16mm tube diameter

### LED Lamps

**MR16 LED Lamp**

- Ideal for point-focal or decorative illumination
- Long-life with low-heat development
- Can easily be set in halogen sockets

<table>
<thead>
<tr>
<th>Colour</th>
<th>No. of LEDs</th>
<th>Lumens</th>
<th>Order Code</th>
<th>Price Each</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>20</td>
<td>20</td>
<td>110-2605</td>
<td>491271</td>
</tr>
</tbody>
</table>
12V MR16 LED Lamps

- Ideal replacements for low voltage halogen lamps
- Longer life with low heat and low power consumption
- 50,000 hours average life
- Closed front
- Colour: White

Technical Data
- Voltage: 12V
- GU5.3 / GU5.3
- Average Life (Hours): 50000
- Dimensions (Dia x L): 40 x 50mm

<table>
<thead>
<tr>
<th>No. of LEDs</th>
<th>Wattage</th>
<th>Order Code</th>
<th>Price Each</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>1.0-1.5W</td>
<td>146-4115</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>1.5-2.0W</td>
<td>146-4119</td>
<td></td>
</tr>
</tbody>
</table>

GU10 DioTronic LED Lamps

- Ultra long life up to 30,000 hours
- Available with various coloured LEDs
- Low power (1.8 to 2W) consumption
- 15x ultra bright LEDs
- Closed front
- Ideal replacement for PAR16 Hi SPOT ES50 with its GU10/GZ10 direct retrofit

Technical Data
- Voltage: 240V
- Temperature rating: 300°C
- SES fitting
- 1000 hours average life
- Dichroic reflector and clear lens
- GU5.3 fitting
- Diameter: 50mm
- Voltage: 12V

<table>
<thead>
<tr>
<th>Colour</th>
<th>Order Code</th>
<th>Price Each</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blue</td>
<td>110-2594</td>
<td></td>
</tr>
<tr>
<td>Red</td>
<td>110-2597</td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>110-2598</td>
<td></td>
</tr>
</tbody>
</table>

Dio-Tronic GU10 LED Lamps

- Single source, high power LED lamps, ideal for display and effect lighting
- Rich colour performance
- Outstanding long life - 50,000 hours
- Optical quality lenses of glass and acrylic
- Mains voltage GU10 fittings
- Beam angle: 35°
- Dimensions (Dia x L): 58 x 51mm

Technical Data
- Voltage: 12V
- GU10 base
- Average Life (Hours): 50000
- Base: GX5.3 / GU5.3
- Voltage: 12V

<table>
<thead>
<tr>
<th>Watts</th>
<th>Order Code</th>
<th>Price Each</th>
</tr>
</thead>
<tbody>
<tr>
<td>2W</td>
<td>129-8327</td>
<td></td>
</tr>
<tr>
<td>3W</td>
<td>129-8328</td>
<td></td>
</tr>
<tr>
<td>4W</td>
<td>129-8329</td>
<td></td>
</tr>
</tbody>
</table>

Oven Lamps

- Clear glass filament lamps for ovens and other hot environments
- 1000 hours average life
- SES fitting
- Temperature rating: 300°C
- Voltage: 240V

Technical Data
- Diameter: 50mm
- GU5.3 fitting
- Voltage: 12V

<table>
<thead>
<tr>
<th>Watts</th>
<th>Size (Dia x L)</th>
<th>Order Code</th>
<th>Price Each</th>
</tr>
</thead>
<tbody>
<tr>
<td>15W</td>
<td>22 x 50mm</td>
<td>130-3402</td>
<td></td>
</tr>
<tr>
<td>25W</td>
<td>25 x 55mm</td>
<td>130-3403</td>
<td></td>
</tr>
<tr>
<td>40W</td>
<td>45 x 75mm</td>
<td>130-3404</td>
<td></td>
</tr>
</tbody>
</table>

Infra-Red Heat Lamps

- Infra-red tungsten filament heat lamps in both R125 and PAR38 styles
- 5000 hours average life
- Hard Black version (R125) resistant to thermal shocks, such as water splashes, making it suitable for industrial applications
- Hard Pressed versions have a high-efficiency reflector and refractor lens design, allowing accurate heat direction to where it is needed
- ES fitting
- Voltage: 240V / 250V

<table>
<thead>
<tr>
<th>Type</th>
<th>Watts</th>
<th>List. No.</th>
<th>Order Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hard Black (R125)</td>
<td>50W</td>
<td>130-3421</td>
<td>1+ 10+ 25+</td>
</tr>
<tr>
<td>Hard Pressed (PAR38)</td>
<td>50W</td>
<td>130-3422</td>
<td>1+ 10+ 25+</td>
</tr>
<tr>
<td></td>
<td>50W</td>
<td>130-3423</td>
<td>1+ 10+ 30+</td>
</tr>
</tbody>
</table>

Low Voltage Tungsten Halogen Lamps

- Closed face halogen lamps for low voltage applications
- 3000 hours average life
- Dichroic reflector and clear lens
- GU5.3 fitting
- Diameter: 50mm
- Voltage: 12V

<table>
<thead>
<tr>
<th>Type</th>
<th>Watts</th>
<th>Beam Angle</th>
<th>Order Code</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>20W</td>
<td>10° (Spot)</td>
<td>130-3421</td>
</tr>
<tr>
<td></td>
<td>20W</td>
<td>36° (Flood)</td>
<td>130-3422</td>
</tr>
<tr>
<td></td>
<td>35W</td>
<td>10° (Spot)</td>
<td>130-3423</td>
</tr>
<tr>
<td></td>
<td>35W</td>
<td>36° (Flood)</td>
<td>130-3424</td>
</tr>
<tr>
<td></td>
<td>50W</td>
<td>10° (Spot)</td>
<td>130-3425</td>
</tr>
<tr>
<td></td>
<td>50W</td>
<td>36° (Flood)</td>
<td>130-3426</td>
</tr>
</tbody>
</table>

35mm Low Voltage Halogen

- Integral glass front cover maintains the brilliance of the dichroic reflector whilst protecting it from dust and humidity
- Produces high light output with uniform illumination
- Incorporates special UV absorbing quartz bulbs meeting the latest standards
- Suitable for operation in open luminaires
- Average life 2000 hours
- GU4 base

<table>
<thead>
<tr>
<th>Mfrs. Lamp</th>
<th>List No.</th>
<th>Watts (Spot)</th>
<th>Order Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>M200</td>
<td>10W wide flood</td>
<td>44898 WFL</td>
<td>152-8815</td>
</tr>
<tr>
<td>M252</td>
<td>20W spot</td>
<td>44890 SP</td>
<td>152-8816</td>
</tr>
<tr>
<td>M221</td>
<td>20W wide flood</td>
<td>44890 WFL</td>
<td>152-8814</td>
</tr>
</tbody>
</table>
Low Voltage Tungsten Halogen Lamps - continued

**Long Life Low Voltage Halogen Capsule Lamps**

- Single-ended, low voltage (12V) capsule lamps
- Xenon filled for extended life
- 8,000 hours average life
- Can be operated in any position
- Low-pressure, ideally suited for use in open luminaires
- UV stop
- Space between pins: G4 = 4mm, G6.35 = 6.35mm

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Watts</th>
<th>Fitting</th>
<th>Order Code</th>
<th>Price Each</th>
</tr>
</thead>
<tbody>
<tr>
<td>12V</td>
<td>10W</td>
<td>G9</td>
<td>128-5100#</td>
<td>1+ 5+</td>
</tr>
<tr>
<td>20W</td>
<td></td>
<td>G9</td>
<td>128-5101#</td>
<td>5+</td>
</tr>
<tr>
<td>G6.35</td>
<td>5W</td>
<td>G9</td>
<td>128-5102#</td>
<td>10+</td>
</tr>
<tr>
<td>10W</td>
<td></td>
<td>G9</td>
<td>128-5103#</td>
<td>25+</td>
</tr>
</tbody>
</table>

**Dichroic Long Life Low Voltage Halogen Capsule Lamps**

- Suitable for use in open luminaires
- Low pressure standard with UV-Block glass
- Can be operated in any position
- 3000 hours average life
- Xenon filled for extended life

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Watts</th>
<th>Base Beam Angle</th>
<th>Order Code</th>
<th>Price Each</th>
</tr>
</thead>
<tbody>
<tr>
<td>20W</td>
<td>100W</td>
<td>35°</td>
<td>128-5096#</td>
<td>1+ 5+ 10+</td>
</tr>
<tr>
<td>35W</td>
<td>50W</td>
<td>30°</td>
<td>128-5098#</td>
<td>20+</td>
</tr>
</tbody>
</table>

**Low Voltage Halogen Capsule Lamps**

**CAPSULEline Pro**

- Single-ended low voltage halogen capsule lamps, giving crisp white halogen light of professional quality
- Ideal for task lighting and decorative applications in homes, shops, hotels and restaurants
- 3000 hours average life
- Suitable for use in open luminaires
- Low pressure standard with UV-Block glass

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Wattage</th>
<th>Cap LIF Code</th>
<th>Order Code</th>
<th>Price Each</th>
</tr>
</thead>
<tbody>
<tr>
<td>12V</td>
<td>25W</td>
<td>GU10</td>
<td>130-3437#</td>
<td>1+ 5+ 10+</td>
</tr>
<tr>
<td>35W</td>
<td>50W</td>
<td>GZ10</td>
<td>130-3438#</td>
<td>20+</td>
</tr>
<tr>
<td>75W</td>
<td>100W</td>
<td>GZ10 30°</td>
<td>130-3439#</td>
<td>25+</td>
</tr>
<tr>
<td>12V</td>
<td>50W</td>
<td>M90</td>
<td>129-8366#</td>
<td>1+ 5+ 10+</td>
</tr>
<tr>
<td>100W</td>
<td></td>
<td>M100</td>
<td>127-8368#</td>
<td>20+</td>
</tr>
</tbody>
</table>

**Mains Voltage Tungsten Halogen Lamps**

**GU10 Halogen Lamps**

- Aluminised reflector lamp PAR16 with GU10 base
- Tempered glass front cover
- 2000 Hours average life
- Beam Angle: 36° (Flood)
- Voltage: 240V

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Wattage</th>
<th>Order Code</th>
<th>Price Each</th>
</tr>
</thead>
<tbody>
<tr>
<td>20W</td>
<td>100W</td>
<td>129-8366#</td>
<td>1+ 5+ 20+</td>
</tr>
<tr>
<td>35W</td>
<td>50W</td>
<td>129-8366#</td>
<td>20+</td>
</tr>
<tr>
<td>50W</td>
<td></td>
<td>129-8366#</td>
<td>30+</td>
</tr>
</tbody>
</table>

**GU10/GZ10 Halogen Lamps**

- Enclosed front halogen lamps for precision and decorative lighting
- 2000 hours average life
- Available as either GU10 Dichroic reflector or GU10 Aluminium reflector
- Diameter: 50mm
- Wattage: 50W
- Voltage: 240V

<table>
<thead>
<tr>
<th>Fitting</th>
<th>Beam Angle</th>
<th>Order Code</th>
<th>Price Each</th>
</tr>
</thead>
<tbody>
<tr>
<td>GU10</td>
<td>30° (Spot)</td>
<td>130-3416#</td>
<td>1+ 5+ 10+</td>
</tr>
<tr>
<td>GU10</td>
<td>(Flood)</td>
<td>130-3419#</td>
<td>25+</td>
</tr>
<tr>
<td>GZ10</td>
<td>(Spot)</td>
<td>130-3420#</td>
<td>25+</td>
</tr>
</tbody>
</table>

**GU10 Xenon Lamps**

- Ideal for areas where low maintenance is essential
- Mains voltage GU10 fittings
- 5,000 hours average life
- Low pressure UV stop
- Aluminised reflector
- Clear enclosed front
- Beam Angle: 25° (Flood)
- Dimensions (LxDia): 50 x 50mm

<table>
<thead>
<tr>
<th>Watts</th>
<th>Order Code</th>
<th>Price Each</th>
</tr>
</thead>
<tbody>
<tr>
<td>20W</td>
<td>129-5096#</td>
<td>1+ 5+</td>
</tr>
<tr>
<td>35W</td>
<td>129-5097#</td>
<td>5+</td>
</tr>
<tr>
<td>50W</td>
<td>129-5098#</td>
<td>10+</td>
</tr>
</tbody>
</table>

**Hi-Spot Mains Voltage Tungsten Halogen**

- Very high quality range of 240V mains halogen lamps
- Brilliant light without the need of a transformer
- Long life (between 1500-3000 hours depending on size)
- Available in GU10, GZ10, E14 and E27

<table>
<thead>
<tr>
<th>Wattage</th>
<th>Beam Angle</th>
<th>Life h</th>
<th>Diameter</th>
<th>Order Code</th>
<th>Price Each</th>
</tr>
</thead>
<tbody>
<tr>
<td>35W</td>
<td>GU10</td>
<td>50h</td>
<td>35x35</td>
<td>129-7865#</td>
<td>1+ 5+ 10+</td>
</tr>
<tr>
<td>50W</td>
<td>GU10</td>
<td>51h</td>
<td>56x56</td>
<td>129-7867#</td>
<td>1+ 5+ 10+</td>
</tr>
<tr>
<td>50W</td>
<td>GU10</td>
<td>51h</td>
<td>70x70</td>
<td>129-7176#</td>
<td>1+ 5+ 10+</td>
</tr>
<tr>
<td>75W</td>
<td>GU10</td>
<td>64h</td>
<td>80x80</td>
<td>129-7785#</td>
<td>1+ 5+ 10+</td>
</tr>
<tr>
<td>75W</td>
<td>GU10</td>
<td>61h</td>
<td>100x100</td>
<td>129-7786#</td>
<td>1+ 5+ 10+</td>
</tr>
<tr>
<td>75W</td>
<td>GU10</td>
<td>61h</td>
<td>125x125</td>
<td>129-7787#</td>
<td>1+ 5+ 10+</td>
</tr>
<tr>
<td>100W</td>
<td>GU10</td>
<td>78h</td>
<td>125x125</td>
<td>129-7788#</td>
<td>1+ 5+ 10+</td>
</tr>
</tbody>
</table>

**TROUBLESHOOTING TIPS**

Chat online to one of our technical engineers at farnell.com
Shatterproof G9 Halogen Capsule Lamps

- Single-ended, twin fused halogen capsule lamps
- 8,000 hours average life
- G9 fitting
- UV stop
- Available in clear or frosted finish

Germicidal Safety Lamps

- Destroys bacteria, germs and other potentially damaging biological organisms
- Not suitable for use in food preparation areas
- Made from F.E.P, no toxic UV retardants
- More than 5% light loss through coating
- FDA approved in compliance with 21 CFR 177.1550
- Resistant to heat and fire to IEC 60695-2-1/0, 168 hours

- Working temperature: -25°C to 50°C
- Max operating temperature: 20,000 hours at 100°C
- Melting point: 260°C

Metal Halide Lamps

PowerStar® High Intensity Metal Halide Lamps

- Metal halide lamps that produce a crisp white light and distinguish themselves by their high luminous efficacy and excellent colour rendering
- Ideal for indoor and outdoor display lighting, shops, supermarkets, hotels, car parks and stadiums
- Replace like-for-like in lamp types and wattages
- Complete with a UV stop quartz jacket
- Colour temperatures are Warm White (WW), Neutral (N) and Daylight (D)

G9 Halogen Capsule Lamps

- Suitable for use in open luminaires
- Integral safety fuse
- 2,000 hours average life
- Robust filament support thanks to bulb-pinching technology
- Complies with the strictest UV protection thresholds
- Robust filament support thanks to bulb-pinching technology
- 2,000 hours average life
- Suitable for use in open luminaires

Double-Ended Halogen Lamps

- Rough service linear tungsten halogen lamps
- Ideal for use in rough-service applications, interior or uplighting and external floodlights
- 2,000 hours average life
- Triple support

Insect/Germicidal Lamps

Germicidal Safety Lamps

- Shatterproof
- Destroys bacteria, germs and other potentially damaging biological organisms
- Not suitable for use in food preparation areas
- Made from F.E.P, no toxic UV retardants
- Less than 5% light loss through coating
- FDA approved in compliance with 21 CFR 177.1550
- Resistant to heat and fire to IEC 60695-2-1/0, 168 hours

- Working temperature: -25°C to 50°C
- Max operating temperature: 20,000 hours at 100°C
- Melting point: 260°C

Audio, Office and Electrical
### E27 Lampholder
- Manufactured from white porcelain
- Snap in or screw fixing
- Connection via screw terminal

<table>
<thead>
<tr>
<th>Weight (g)</th>
<th>Current rating (A)</th>
<th>Length x Dia.</th>
<th>Voltage rating (V)</th>
<th>Temperature rating °C</th>
</tr>
</thead>
<tbody>
<tr>
<td>72</td>
<td>2</td>
<td>59 x 44.5</td>
<td>250</td>
<td>210</td>
</tr>
</tbody>
</table>

#### BC Lampholder
- Snap in or screw fixing
- Moulded housing

<table>
<thead>
<tr>
<th>Weight (g)</th>
<th>Current rating (A)</th>
<th>Length x Dia.</th>
<th>Voltage rating (V)</th>
<th>Temperature rating °C</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>2</td>
<td>32.2 x 37.8</td>
<td>250</td>
<td>210</td>
</tr>
</tbody>
</table>

#### G23 Lampholder
- Manufactured in white PBT
- Horizontal screw fixing
- Wiring through the rear

<table>
<thead>
<tr>
<th>Weight (g)</th>
<th>Current rating (A)</th>
<th>Length x Width x Depth</th>
<th>Voltage rating (V)</th>
<th>Temperature rating °C</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>2</td>
<td>37.2 x 35 x 32.1</td>
<td>250</td>
<td>140</td>
</tr>
</tbody>
</table>

#### 2G 11 Lampholder
- Manufactured from white PBT
- Screw fixing either horizontally or vertically

<table>
<thead>
<tr>
<th>Weight (g)</th>
<th>Current rating (A)</th>
<th>Length x Width x Depth</th>
<th>Voltage rating (V)</th>
<th>Temperature rating °C</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>2</td>
<td>47.5 x 37.5 x 18.5</td>
<td>250</td>
<td>140</td>
</tr>
</tbody>
</table>

#### G24 + GX 24 Lampholders
- Snap in or vertical screw in fixing
- Threaded barrel
- Manufactured in white PBT
- Available in 2 pin and 4 pin for various wattages

<table>
<thead>
<tr>
<th>Weight (g)</th>
<th>Current rating (A)</th>
<th>Voltage rating (V)</th>
<th>Temperature rating °C</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>2</td>
<td>250</td>
<td>140</td>
</tr>
</tbody>
</table>

### Fluorescent T5
- Manufactured from white polycarbonate
- Phosphor bronze contacts
- Operates up to 110°C

#### Order Multiple=10
- Snap in
  - Order Code: 358-2919
- Push on
  - Order Code: 358-2920

### Fluorescent T8/T12
- A range of snap-fit or screw fixing lampholders with a unique 'airpass-rotor' system, resulting in cooler running temperatures. A mild steel bracket is available for end mounting lampholders.

#### Order Multiple=10
- Screw, end mounting
  - Order Code: 213-4629
- Snap-fit, bottom mounting
  - Order Code: 530-610
- Snap-fit, end mounting
  - Order Code: 530-621
- Fixing bracket
  - Order Code: 530-633

### Fluorescent-Push on
- Polycarbonate push-on lampholders accepting T8 or T12 fluorescent tubes. The lampholder is designed for electrical connection only when the lamp is supported by clips or other means.

#### Order Multiple=10
- Type
  - T8: 530-645
  - T12: 530-657
Fluorescent Lamp Starters

2 pin standard glow type fluorescent lamp starter designed to fit a wide range of single circuit fluorescent lighting units from 4 to 80 watts. 200 to 250 volts. The canister is manufactured from high impact material and incorporates a radio interference suppression capacitor.

- Length (excluding pins): 35mm
- Diameter: 21.5mm
- Pin pitch: 12.7mm

Order Code 1+ 5+ 10+
465-7496

Price Each

Fluorescent Starters

- Radioactive-free glow switch starters for fluorescent lamps
- Secure, safe and fast lamp ignition on both L and LC systems according to IEC 60155
- Radio-interference suppression capacitor
- 200 way
- Voltage: 240V

Price Each

Watts Order Code 1+ 25+ 50+
4-65W 130-3427 9 3 1

70-125W 130-3428

Fluorescent Tube Starter Switches

- High quality two pin glow starters
- Housed in high impact polycarbonate
- Solderless interior junctions give very high reliability
- Fitted with an internal radio interference suppression capacitor

Supply voltage 230V ac 50Hz
Dimensions: L = 36.0 (40.3 including pins), Dia=21.5

<table>
<thead>
<tr>
<th>Tube Rating</th>
<th>Mtrs.</th>
<th>Order Code</th>
<th>5+</th>
<th>10+</th>
<th>50+</th>
<th>100+</th>
</tr>
</thead>
<tbody>
<tr>
<td>65W and below</td>
<td>155/500</td>
<td>107-634</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>70W - 125W</td>
<td>155/800</td>
<td>107-635</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Electronic Pulse Starter

- Suitable for most fluorescent fittings up to 125W
- Starter extends tube life by preheating the cathode heaters before attempting to strike
- Starter automatically shuts down if a tube fails, eliminating heat build up and tube flicker

Supply voltage 200-260V ac 50/60Hz
Body Polycarbonate body, Bakelite base

L=35 (40 incl. pins), Dia=21

Order Code 1+ 10+ 25+ 50+
108-581

Starter Holders

- Snap fit: H=24, L=34, D=23 (inc. pins)
- Screw: H=26, L=40, D=12.5
- 2 mtg holes Dia 4 @ 31 crts

Fluorescent tube starter holders available with snap-fit or screw fixing. Both have push-wire terminals.

Order Multiple=10 Price Each

<table>
<thead>
<tr>
<th>Type</th>
<th>Order Code</th>
<th>10+</th>
<th>100+</th>
<th>500+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Snap-fit</td>
<td>530-670</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Screw</td>
<td>530-682</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>